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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,050	02/02/2006	Todd Martin Beazley	PUO30191	2427

24498 7590 01/24/2007  
THOMSON LICENSING INC.  
PATENT OPERATIONS  
PO BOX 5312  
PRINCETON, NJ 08543-5312

EXAMINER
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CHAWAN, SHEELA C

ART UNIT	PAPER NUMBER
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2624

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/567,050	BEAZLEY, TODD MARTIN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sheela C. Chawan	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's amendment filed on Nov 1, 2006 has been entered and made of record.

Claims 1-25 are pending in the application.

***Response to Arguments***

2. Applicant's arguments, see page 6, lines 17-26 of the remarks, filed Nov 1, 2006 with respect to rejection of claims 1-25 under 102(a) have been fully considered and are persuasive. Therefore, 102(e) rejection of claims 1-25 has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Thomas (US. 7,027,659 B1).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- 6,8,17,19, 21, 22 and 25 are rejected under are rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al., (US.6, 697, 534 B1), in view of Thomas (US. 7,027,659 B1).

As to claim 1, Tan discloses a method use in removing noise from image data (abstract), the method comprising:

receiving image data representing an image (fig 4, element 410 capture image device for a local region of a captured image and using adaptively computed crispening parameter on local image content of an image);

filtering the received image data to remove noise therefrom and to provide filtered image data (fig 4, column 9, lines 45- 67, column 10, lines 1-18).

Tan is silent about specifics details of displaying where the filtering is being performed on the received image data.

Thomas discloses method and apparatus for generation video images. The system comprises of:

displaying where the filtering is being performed on the received image data (column 9, lines 50- 65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tan to include displaying where the filtering is being performed on the received image data. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tan by the teaching of Thomas because it leads to a reduction in the amount of data that is required to be captured, stored and transmitted to achieve high quality 3D video conferencing, (as suggested by Thomas at column 14, lines 22- 25).

As to claim 2, Tan discloses the method further comprising the step of displaying the filtered image data (fig 1B, column 5, lines 28- 67, column 6, lines 1-24).

As to claim 3, Tan discloses the method further comprising the step of compressing the filtered image data to provide compressed filtered image data (column 5, lines 40- 46).

As to claim 4, Tan discloses the method further comprising the step of transmitting the compressed filtered image data to an endpoint (column 4, lines 46- 67, column 5, lines 1-67, column 6, lines 1-20).

As to claim 5, Tan discloses the method further comprising the step of, in response to the displaying step, adjusting filter parameters used in the filtering step (column 4, lines 46- 67).

As to claim 6, Tan discloses the method further comprising the step of storing the adjusted filter parameters for future reference in filtering the image data (column 4, lines 46- 67, column 5, lines 37- 42, 64-67, column 6, lines 1-20).

Regarding claim 8, argument analogous those presented for claim 1 are applicable to claim 8. Regarding converting a control signal used in the filtering to a video signal as discloses by Tan as follow (fig 4, column 9, lines 47- 67, column 10, lines 1-16).

As to claim 17, see the rejection of claim 1 and 8.

As to claim 19, see the rejection of claim 1 and 8.

As to claim 21, see the rejection of claim 1 and 8.

As to claim 22, see the rejection of claim 1 and 8.

As to claim 25, see the rejection of claim 1 and 8.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 9-16, 18, 20, 23 and 24, are rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al., (US.6, 697, 534 B1), in view of Thomas (US. 7,027,659 B1), as applied to the claims 1 - 6, 8, 17, 19, 21, 22 and 25 above and further in view of Chun (US. 5,949,916).

Regarding claim 7 and 9 Tan discloses a sharpening an image and, more particularly, to adaptively sharpening local image content of an image. Tan is silent about specifics details of Lee filters.

Chun discloses an automatic regressive (AR) filter and a filtering method thereof, and particularly, to an AR filter which functions as an adaptive filter in a still region of an image and outputs an observed signal unaltered in a moving region of the image in order to remove a blurring phenomenon at the edge of a moving target in that image. The system comprises of: the method wherein the filtering is performed in accordance with a Lee filter (column 1, lines 33- 35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tan to include Lee filter. It would have been obvious to

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one of ordinary skill in the art at the time of the invention to modify Tan by the teaching of Chun in order to provide high performance noise removal. Also, the edge of the moving target of the moving picture can be preserved well (as suggested by Chun at column 8, lines 5 - 8).

As to claim 10, Chun discloses the method, wherein the control signal is a smoothing to control signal of the Lee filter (column 1, lines 33-35).

As to claim 11, Tan discloses the method wherein the converting step converts the control signal to a monochrome video signal (fig 4, element 430, column 8, lines 7-67).

As to claim 12, Tan discloses the method wherein the converting step converts the control signal to a monochrome video signal (fig 4, element 430, column 8, lines 7-67).

As to claim 13, Tan discloses the method wherein the image is a black and white representation of edge activity in the filtered image data (fig 6, column 2, lines 62- 67, column 3, lines 1- 42).

As to claim 14, Tan discloses the method wherein the control signal represents a statistical function (fig 6, column 8, lines 7-50, column 9, lines 14-67, column 10, lines 1-19).

As to claim 15, Tan discloses wherein the statistical function is a local variance of at least a portion of the image data (fig 6, column 8, lines 7-50, column 9, lines 14-67, column 10, lines 1-19).

As to claim 16, Tan discloses the method, wherein the portion is a group of pixels of the image data (fig 4, column 9, lines 14- 67).

As to claim 18, Tan discloses the method wherein the adjusting step compares an average brightness level of the displayed image to a predefined average brightness level (column 8, lines 7-50).

As to claim 20, Tan discloses the server wherein the display also shows the filtered image data (column 5, lines 16- 46).

As to claim 23, Chun discloses the apparatus further comprising a multiplexer coupled to the filter, video converter and the display, wherein the multiplexer is responsive to a mode control signal for coupling either the filtered image data or the video signal to the display (column 7, lines 41-67, column 8, lines 1-8).

As to claim 24, Chun discloses the apparatus wherein the filter is a Lee filter and the control signal is a measure of a local variance of at least a portion of the image data (column 1, 27- 35, column 2, lines 41- 48, column 4, lines 46- 58).



***Other prior art cited***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rashkovskiy et al., (US.5,798,948) discloses method and apparatus for video filtering.

Hentschel et al., (US. 6,947,098 B2) discloses video signal processing.

Parulski (US.5,519,452) discloses mechanism for improving television display of still images using image motion – dependent filter.

Alderson et al., (US.6,973,218 B2) discloses dynamic range compression.

Hui (US.7,046,307 B1) discloses video signal noise level estimator.

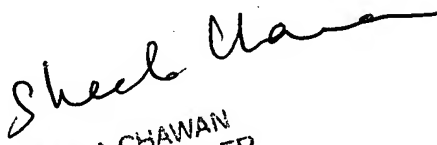
**Contact Information**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Thursday 7.30 - 6.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sheela Chawan  
Patent Examiner  
Group Art Unit 2624  
Jan 16, 2007

  
SHEELA CHAWAN  
PRIMARY EXAMINER